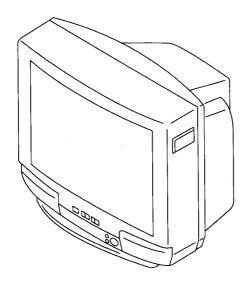
KV-T25L1/T25MF1/T25MN1 KV-T25MN11/T25SF1/T25SF11

SERVICE MANUAL





ME Model

KV-T25L1 Chassis No. SCC-H45E-A KV-T25MF1 Chassis No. SCC-H45B-A KV-T25MN11 Chassis No. SCC-H45F-A

Thailand Model

KV-T25MF1 Chassis No. SCC-H85A-A

Ausutralian Model

KV-T25SF1 Chassis No. SCC-H84A-A

Newzealand Model

KV-T25SF11 Chassis No. SCC-H86A-A

Hongkong Model
KV-T25MN1 Chassis No. SCC-H72B-A

BG-1S CHASSIS

MODEL OF THE SAME SERIES					
KV-T25L1/T25MF1/T25MN1 KV-T25MN11/T25SF1/T25SF11	-				



TRINITRON. COLOR TV SONY.

SPECIFICATIONS

		Note
Power requirements	110-240 V AC, 50/60 Hz	
Power consumption (W)	Indicated on the rear of the TV	
Television system	B/G, I, D/K, M	KV-T25MF1/T25MN11
(B/G	KV-T25L1/T25SF1/T25SF11
Color system	PAL, PAL60, SECAM, NTSC4.43, NTSC3.58	KV-T25MF1/T25MN11
	PAL, PAL60, SECAM, NTSC4.43	KV-T25L1
	PAL, PAL60, NTSC4.43, NTSC3.58	KV-T25SF1/T25SF11
Stereo system	NICAM Stereo B/G, I; A2 Stereo (German) B/G	KV-T25MN11 only
Channel coverage B/G	VHF: E2 to E12/UHF: E21 to E69/CATV: S01 to S03, S1 to S41 VHF: 0 to 12, 5A, 9A/UHF: 28 to 69/CATV: S01 to S03, S1 to S41	KV-T25L1/T25MF1/T25MN1
	VHF: 1 to 11/UHF: 21 to 69/CATV: S01 to S03, S1 to S41	KV-T25SF11
- 		KV-1255F11
	UHF: B21 to B68/CATV: S01 to S03, S1 to S41	
D/K	VHF: C1 to C12, R1 to R12/UHF: C13 to C57, R21 to R60/ CATV: S01 to S03, S1 to S41, Z1 to Z39	
M	VHF: A2 to A13/UHF: A14 to A79/ CATV: A-8 to A-2, A to W+4, W+6 to W+84	
Audio output (speaker)	5W × 2	
Inputs	Antenna: 75 ohms	
	VIDEO INPUT jacks: phono jacks Video: 1 Vp-p, 75 ohms Audio: 500 mVrms, high impedance	
Outputs	Headphone jack: mini jack	
	Earphone jack: mini jack	KV-T25L1 only
	MONITOR OUT jacks: phono jacks Video: 1 Vp-p, 75 ohms Audio: 500 mVrms	
Picture tube Tube size (cm)	25 in. 64	Measured diagonally
Screen size (cm)	60	Measured diagonally
Dimensions (w/h/d, mm)	613 × 542 × 472	
Mass (kg)	32	

Design and specifications are subject to change without notice.

CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK Δ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

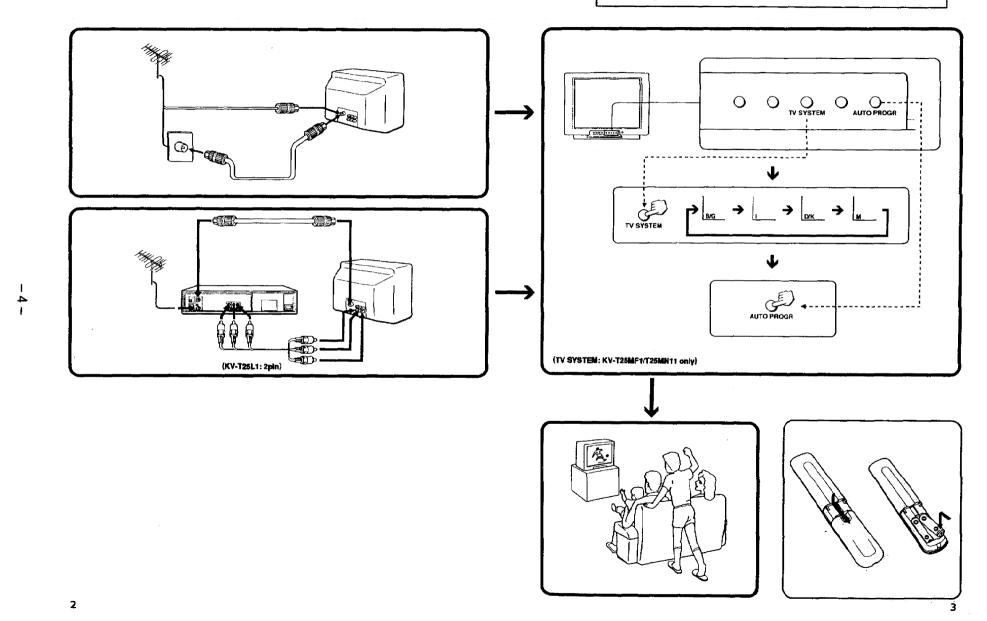
KV-T25L1/T25MF1/T25MN11 KV-T25SF1/T25SF11 RM-870

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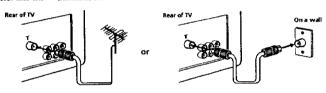
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SECTION 1 GENERAL

The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.



Attach an optional IEC antenna connector to the 75-ohm coaxial cable. Plug the connector into the ${\bf T}$ (antenna) socket at the rear of the TV.

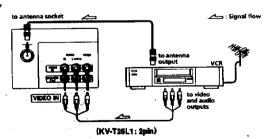


Connecting optional equipment

You can connect optional audio/video equipment to your TV such as a VCR, multi disc player, camcorder, video game or stereo system.

Connecting video equipment using video input jacks

Rear of TV



When connecting a monaural VCR Connect the yellow plug to VIDEO and the black plug to AUDIO-L (MONO).

Front of TV



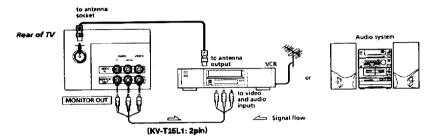
(KV-T25L1: 2pin)

∠_: Signal flow

When using the video input jacks

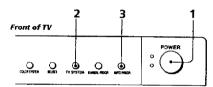
Do not connect video equipment to the video input jacks at the front and the rear of your TV simultaneously; otherwise the picture will not be displayed properly on the screen.

Connecting audio/video equipment using MONITOR OUT jacks



When recording through the MONITOR OUT jacks

If you change the channel or video input while recording with a VCR, the channel or video input you are recording also will be changed.



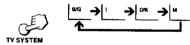
1 Press POWER.

တ

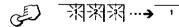


When the TV is in standby mode after pressing POWER, press POWER on the remote commander.

2 Press TV SYSTEM until your local TV system appears. (KY-T25MF1/T25MN11 only)



3 Press AUTO PROGR.



AUTO PROGR

To start presetting channels automatically from the specified program position

- 1 Press.MANUAL PROGR.
- 2 Press TV SYSTEM to select your local TV system. (KV-T25MF1/T25MN11 only)
- 3 Press PROGR +/- to select the program position.
- 4 Press AUTO PROGR.
- 6-EN | Getting Started

Presetting channels manually

To change the channel for a particular program position or to receive a channel with a weak signal. preset the channel manually.

- 1 Press MANUAL PROGR.
- 2 Press PROGR +/- until the required program position appears on the screen.
- 3 Press TV SYSTEM until your local TV system appears, (KV-T25MF1/T25MN11 only)
- 4 Press VOLUME +/- on the TV until the required channel picture appears on the screen.
- 5 Press MANUAL PROGR.

If the TV system is not properly selected

The color of the picture may be poor and/or the sound may be noisy. In this case, select the appropriate TV system. (KV-T25MF1/T25MN11 only)

- 1 Press PROGR +/- to select the program position.
- 2 Press TV SYSTEM until the picture and sound

Notes (KV-T25MF1/T25MN11 only)

- . If you do not know your local TV system, consult your nearest authorized service center or dealer
- . The setting of the TV SYSTEM is memorized for each program position.

Disabling program positions

By disabling unused or unwanted program positions, you can skip those positions when you press PROGR

- 1 Press PROGR +/- until the unused or unwanted program position appears on the screen.
- 2 Press MANUAL PROGR.
- 3 Press PIC MODE on the remote commander.
- 4 Press MANUAL PROGR.

To cancel the skip setting

Preset the channel manually or automatically again.

Operations

Watching the TV

1 Press POWER to turn the TV on.



When the TV is in standby mode after pressing POWER, press POWER on the remote commander

2 Select the TV channel you want to watch.

To select a channel directly

Press a number button.



To select a two-digit channel, press "-/--" before the number buttons.

For example: to select channel 25, press "-/--," and then "2" and "5."



To scan through channels

Press PROGR +/- until the channel you want



3 Press VOL +/- to adjust the volume.



Switching off the TV

To switch off the TV temporarily, press POWER on the remote commander



To switch off the TV completely, press POWER on the

If the power on the TV is turned off in standby mode. the STANDBY indicator may remain alight for a while.



Watching the video input

Press VIDEO/HOLD.

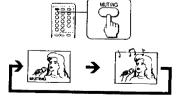


To watch TV, press TV.



Muting the sound

Press MUTING.

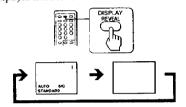


Operations | 7 -EN

Displaying on-screen information

Press DISPLAY/REVEAL.

The program position, local system, and TV settings are displayed on the screen.

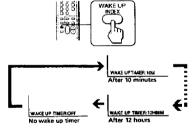


Setting the Wake Up Timer

You can set the TV to turn on automatically after the period of time you want.

1 Press WAKE UP/INDEX repeatedly to set the

The on-screen display appears and the WAKE UP/ STEREO indicator lights up.



- 2 If you want a particular TV program or video input to be displayed using the Wake Up Timer, select the TV program or video mode.
- 3 Press POWER on the remote commander or set the Sleep Timer to turn off the TV in standby mode.

To cancel the Wake Up Timer, press WAKE UP/ INDEX repeatedly until "WAKE UP TIMER: OFF" appears, or turn off the main power of the TV.

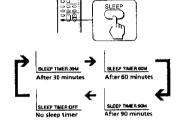
- . The Wake Up Timer starts immediately after the on-screen
- . The last TV program position or video mode just before the TV

- turns into standby mode will appear when the TV turns on using the Wake Up Timer.
- If no buttons or controls are pressed for more than two hours after the TV is turned on using the Wake Up Timer, the TV automatically turns into standby mode. When you want to continue watching the TV, press any button or control on the TV or remote commander.

Setting the Sleep Timer

You can set the TV to turn off automatically after the period of time you want.

Press SLEEP.



To cancel the Sleep Timer, press SLEEP repeatedly until "SLEEP TIMER: OFF" appears, or turn the TV off

Changing the on-screen display language

If you prefer Chinese to English, you can change the on-screen display language. You can use buttons on both the remote commander and the TV.



1 Press SELECT until the screen appears as follows:

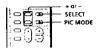


2 Press + or – to select "中文".



 You can also use VOLUME +/- on the TV to select the enscreen display language.

Adjusting the picture and sound

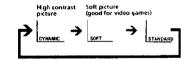


Selecting the picture mode

Press PIC MODE until the mode you want



Each time you press PIC MODE, the screen changes as follows:



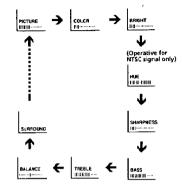
 If you change the picture mode after the following. adjustments, the adjustment changes in accordance with the picture mode.

Adjusting the picture and sound settinas

1 Press SELECT until the item you want to adjust appears.



Each time you press SELECT, the screen changes as follows:



2 Press + or - to adjust the item.



3 To adjust other items, repeat steps 1 and 2. (TV SYSTEM: KV-T25MF1/T25MN11 only)

. You can also use VOLUME +/- on the TV to adjust the picture and sound settings.

If the color of the picture is abnormal

Press TV SYSTEM or COLOR SYSTEM or adjust the color setting until the color becomes normal.

Normally set COLOR SYSTEM to AUTO

If the sound is distorted or noisy

When receiving programs through the T terminal: Press TV SYSTEM until the sound becomes clear.

Front of TV



Selecting a stereo or bilingual program

Press A/B/ENLARGE repeatedly until you receive the sound you want.

The on-screen display changes corresponding to the selected sound and the WAKE UP/STEREO indicator also lights up.



When receiving a NICAM program

Broadcasting	On-screen display (Selected sound)
NICAM stereo	NICAM NICAM →(Stereo sound) → MONO (Regular sound)
NICAM bilingual	NICAM NICAM NICAM → MAIN → SUB → MONO (Main sound) (Sub sound) (Regula sound)
NICAM monaural	NICAM NICAM MAIN MONO (Main sound) (Regular sound)

When receiving a A2 (German) program

Broadcasting	On-screen display (Selected sound)
A2 (German) stereo	STEREO (Stereo sound)
A2 (German) bilingual	STEREO STEREO MAIN SUB (Main sound) (Sub sound)

Receiving area for NICAM and A2 (German) programs

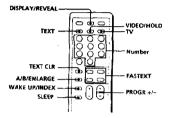
System	Receiving area
NICAM	Hong Kong, Singapore, New Zealand,
	etc.
A2 (German)	Australia, Malaysia, Thailand, etc.

Notes

- If the signal is very weak, the sound becomes monaural
- If the stereo sound is noisy, select "regular sound." The sound becomes moraural, however, the noise will be reduced.

(KV-T25MN11/T25SF11 only)

Viewing Teletext



Displaying Teletext

- 1 Select a TV channel which carries the Teletext broadcast you want to watch.
- 2 Press TEXT to display the Teletext. A Teletext page is displayed (normally the index page). If there is no Teletext broadcast, 100 is displayed at the top left corner of the screen.

To cancel the Teletext display, press TV.

Superimposing a Teletext page on the TV picture

Press TEXT.

Each time you press TEXT, the screen changes as follows:



Checking the contents of a Teletext service

Press WAKE UP/INDEX to display an overview of the Teletext contents and page numbers.

Using FASTEXT

This feature allows you to quickly access a Teletext page that uses FASTEXT. When a FASTEXT page is broadcasted, a color-coded menu appears at the bottom of the screen. The colors of the menu correspond to the RED, GREEN, YELLOW, and CYAN buttons on the remote commander.

Press the color button which corresponds to the colorcoded menu.

The page is displayed after a few seconds.

Selecting a Teletext page

To input the three-digit page number of the Teletext page, press the number buttons.

If you make a mistake, key in the correct page number

To access the next or previous page, press PROGR +/-.

Holding a Teletext page (subpage)

Press VIDEO/HOLD

The HOLD symbol "" is displayed at the top left corner of the screen.

To resume normal Teletext operation, press VIDEO/ HOLD again or TEXT.

Revealing concealed information

Press DISPLAY/REVEAU

To conceal the information, press DISPLAY/REVEAL

Enlarging the Teletext display

Press A/B/ENLARGE.

Each time you press A/B/ENLARGE, the Teletext display changes as follows:



Waiting for a Teletext page while watching a TV program (TEXT CLEAR)

- 1 Key in the page number of the Teletext that you want to refer, then press TEXT CLR.
- When the page number is displayed on the screen, press TEXT to switch the Teletext on.

If the problem persists, contact your nearest authorized service center or dealer.

Snowy picture Noisy sound





- → Check the antenna.
- →Check the antenna connection on the TV and on the wall.
- → Check the TV SYSTEM setting. (KV-T25MF1/T25MN11 only)

Dotted lines or stripes



- → This may be caused by local interference (e.g. cars, neon signs, hair dryers, etc.).
- Adjust the antenna for minimum interference.

Double images or "ghosts"



→ This may be caused by reflections from nearby mountains or buildings. A highly directional antenna may improve the picture.

Note on the remote commander

 The supplied remote commander is used on several models of the TV. If you do not find instructions for some controls that are on the remote commander, that means your TV does not employ the features of those controls, e.g. TEXT.

Good picture Noisy sound



Check the TV SYSTEM setting. (KV-T25MF1/T25MN11 only)

No picture No sound





- → Press POWER.
- → Check the antenna connection.
- → Check the VCR connections.
- →Check the power cord connection.
- → Check the standby mode.

Good picture Na sound





- → Press VOLUME +.
- → Press MUTING.

No color

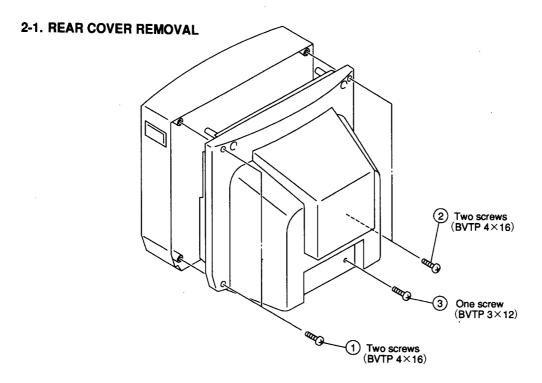


- → Adjust the COLOR level in the on-screen
- → Check the COLOR SYSTEM setting.

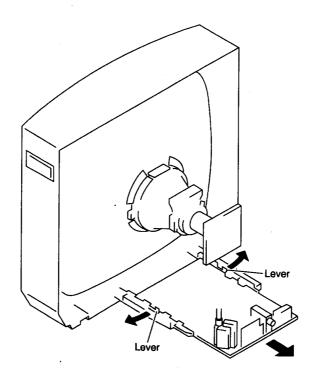
TV cabinet creaks

→ Even if the picture or the sound is normal, changes in the room temperature sometimes make the TV cabinet expand or contract, making a noise. This does not indicate a malfunction.

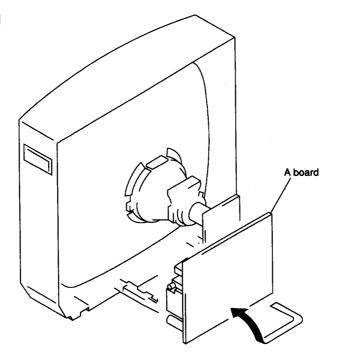
SECTION 2 DISASSEMBLY



2-2. A BOARD REMOVAL



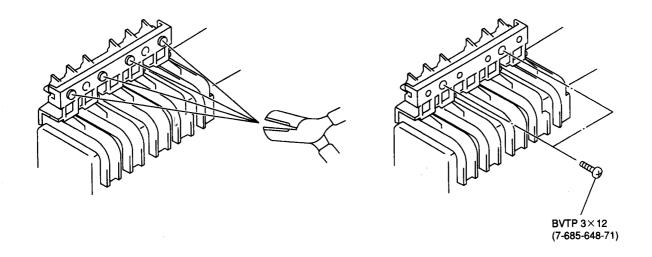
2-3. SERVICE POSITION



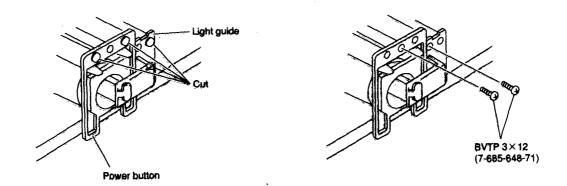
2-4. REPLACEMENT OF PARTS

For replacement of the Multi Button, Power Button and Light Guide, cut the welded portions from them, exchange with the new parts, and fix them with screws (+BVTP) respectively.

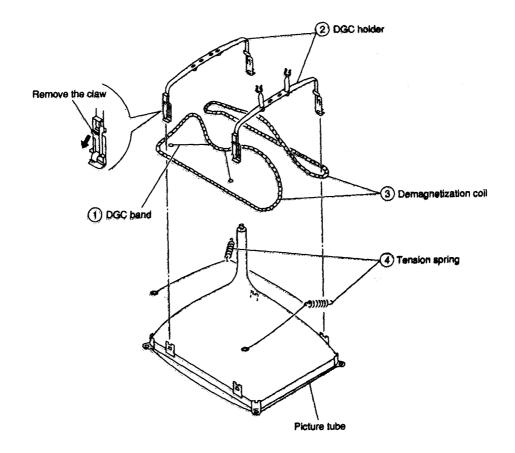
2-4-1. REPLACEMENT OF MULTI BUTTON

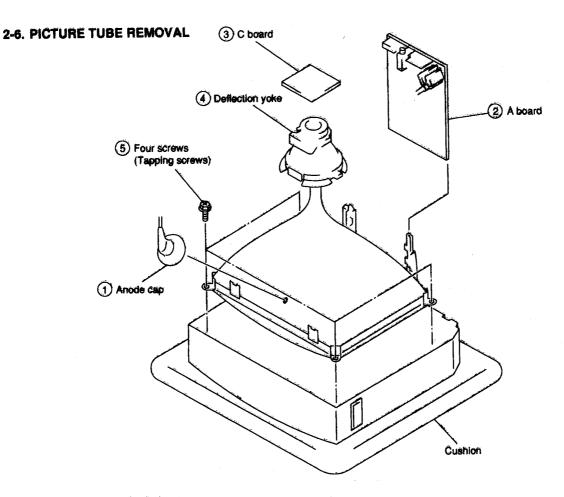


2-4-2. REPLACEMENT OF LIGHT GUIDE, POWER BUTTON



2-5. DEMAGNETIZATION COIL REMOVAL

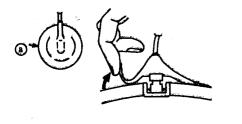


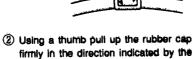


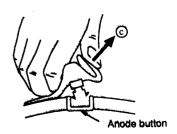
· REMOVAL OF ANODE-CAP

NOTE: Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT, after removing the anode.

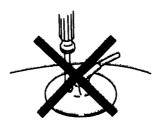
· REMOVING PROCEDURES

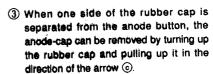


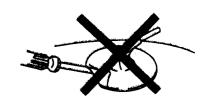




- ① Turn up one side of the rubber cap in the ② Using a thumb pull up the rubber cap direction indicated by the arrow ③. Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⑤.
- · HOW TO HANDLE AN ANODE-CAP
- ① Don't hurt the surface of anode-caps with sharp shaped material!
- ② Don't press the rubber hardly not to hurt inside of anode-caps! A material fitting called as shatter-hook terminal is built in the rubber.
- 3 Don't turn the foot of rubber over hardly! The shatter-hook terminal will stick out or hurt the rubber.







SECTION 3 SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted.

Controls and switch should be set as follows unless otherwise noted:

PICTURE control normal BRIGHTNESS control...... normal

Perform the adjustments in order as follows:

- 1. Beam Landing
- 2. Convergence
- 3. Focus
- 4. White Balance

Note: Test Equipment Required.

- 1. Color-bar/Pattern Generator
- 2. Degausser
- 3. Oscilloscope

Preparations:

- In order to reduce the influence of geomagnetism on the set's picture tube face it east or west.
- Switch on the set's power and degauss with the degausser.

3-1. BEAM LANDING

1. Input the white signal with the pattern generator.

Contrast normal Brightness

- 2. Set the pattern generator raster signal to green.
- 3. Move the deflection yoke to the rear and adjust with the purity control so that the green is at the center and the blue and the red take up equally sized areas on each side.

(See Figures 3-1 through 3-3.)

- 4. Move the deflection yoke forward and adjust so that entire screen is green. (See Figure 3-1.)
- 5. Switch the raster signal to blue, then to red and verify the condition.
- 6. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws.
- 7. If the beam does not land correctly in all the corners, use a magnet to adjust it. (See Figure 3-4.)

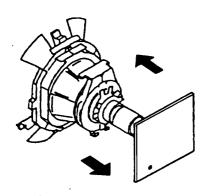


Fig. 3-1



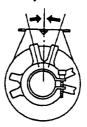


Fig. 3-2

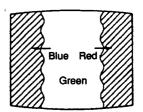
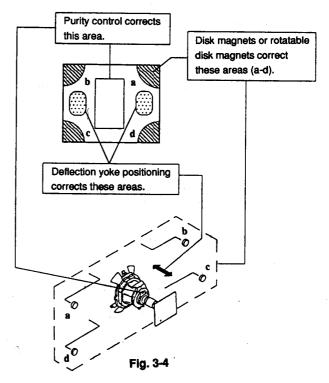


Fig. 3-3

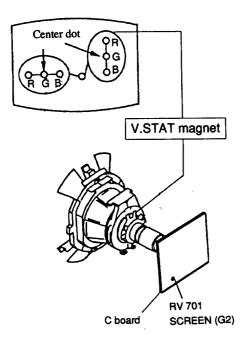


3-2. CONVERGENCE

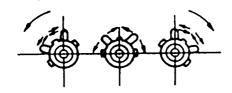
Preparations:

- Before starting this adjustment, adjust the focus, horizontal size, and vertical size.
- Minimize the brightness setting.
- Provide dot pattern.

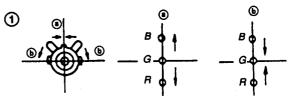
(1) Horizontal and Vertical Static Convergence

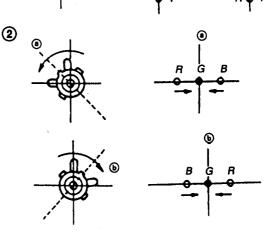


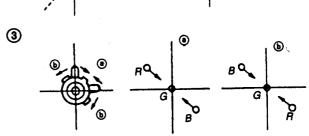
- (Moving vertically), adjust the V.STAT magnet so that the red, green, and blue points are on top of each other at the center of the screen.
- (Moving horizontally), adjust the V.STAT magnet so that the red, green, and blue points are on top of each other at the center of the screen.
- Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.



If the V.STAT magnet is moved in the direction of the and
 arrows, the red, green, and blue points move as shown below.

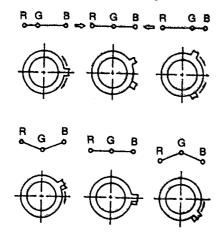


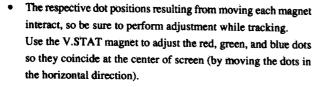


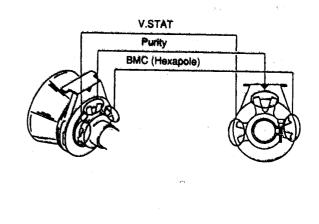


KV-T25L1/T25MF1/T25MN11 KV-T25SF1/T25SF11 RM-870

• Operation of BMC (Hexapole) Magnet.





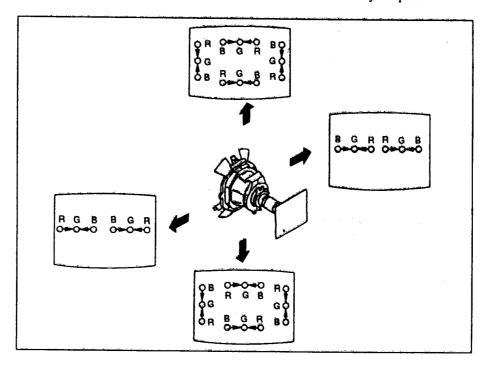


(2) Dynamic Convergence Adjustment

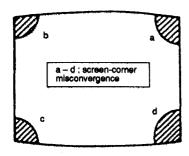
Preparations:

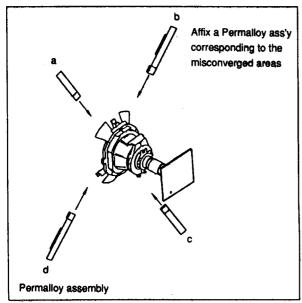
- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence.
- 1. Slightly loosen the deflection yoke screws.
- 2. Remove the deflection yoke spacer.

- 3. Move the deflection yoke as shown in the figure below and optimize the convergence.
- 4. Tighten the deflection yoke screws.
- 5. Install the deflection yoke spacer.



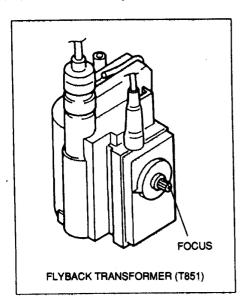
(3) Screen-corner Convergence





3-3. FOCUS ADJUSTMENT

Adjust FOCUS control on the flyback transformer for a best focus.



a. AN ITEM OF ADJUSTMENT

item number	Adjustment item	Initial DATA	Note
09	RDR	25	WHITE POINT R
0A	GDR	20	WHITE POINT G
0B	BDR	20	WHITE POINT B

b. METHOD OF CANCELLATION FROM SERVICE MODE

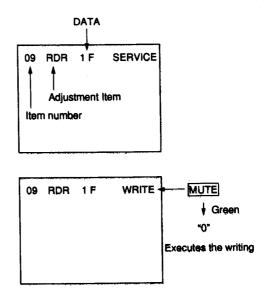
Set the standby condition (Press POWER) button on the commander) in the next place, press POWER button again, hereupon it becomes TV mode.

c. METHOD OF WRITE FOR MEMORY

- 1) Set to Service Mode.
- 2) Press 1 (UP) and 4 (DOWN), select an item of adjustments.
- 3) Press MUTE button indicate WRITE (Green) on screen.
- 4) Press 0 button to write into memory.

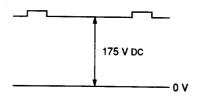
d. MEMORY WRITE CONFIRMATION METHOD

- 1) After adjustment, pull out the plug from AC outlet, and next place, plug in AC outlet again.
- 2) Turn the power switch ON and set to Service Mode.
- 3) Call the adjusted items again, confirm they were adjusted.



3-4. G2 (SCREEN) AND WHITE BALANCE ADJUSTMENTS

- 1. G2 (SCREEN) ADJUSTMENT (RV701)
- 1) Set the PICTURE and BRIGHTNESS to normal.
- 2) Put to VIDEO input mode without signals.
- 3) Connect R, G, and B of the C board cathode to the oscilloscope.
- 4) Adjust G2 (RV701) volume to the value below.



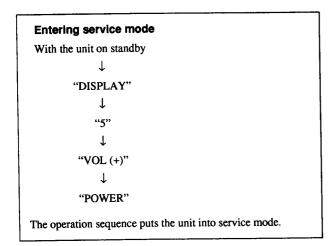
2. WHITE BALANCE ADJUSTMENTS

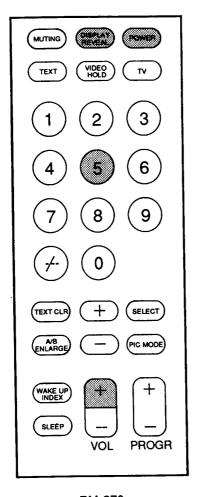
- 1) Set the Service Mode.
- 2) Input an entire white signal.
- 3) Set the PICTURE to maximum.
- 4) Select RDR(09) with 1 and 4, and then set the level to 25 with 3 and 6.
- 5) Select GDR(0A) and BDR(0B) with 1 and 4 and adjust the level with 3 and 6 for the best white balance.
- 6) Write into the memory by pressing $\boxed{\text{MUTE}} \rightarrow \text{then } \boxed{0}$.

SECTION 4 CIRCUIT ADJUSTMENTS

4-1. ADJUSTMENTS WITH COMMANDER

Service adjustments are made with the RM-870 that comes with this unit.



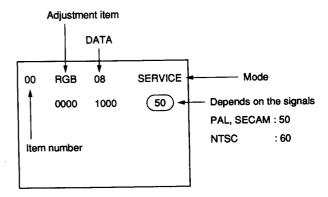


RM-870

"1", "4"	Raise/lower the service item number
"3", "6"	Raise/lower the data
"MUTING"	Writes
"0"	Executes the writing

"7", "0"	The data all becomes the values in memory
"8", "0"	User control all goes to the standard state
"5", "0"	Service data initialization (Besure not to use
	usually.)
"2", "0"	Write 50Hz adjustment data to 60Hz, or
	viceversa.

The screen display is:



"1", "4"	Select the adjustment item.
↓ "3", "6"	Raise/lower the data.
↓ "MUTING"	Writes
↓ ↓	Whites
"0"	Executes the writing.

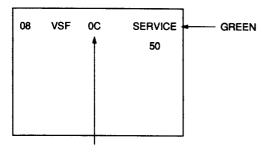
4-2. ADJUSTMENT METHOD

Item Number 08

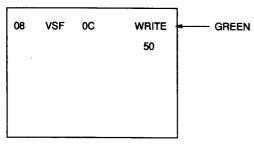
This explanation uses V-SHIFT as an example.

- 1. Select 08 V-SHIFT with the "1" and "4" buttons.
- 2. Raise/lower the data with the "3" and "6" buttons.
- 3. Select the optimum state. (The standard is for 0F PAL reception.)
- 4. Write with the MUTE button.
- 5. Execute the writing with the "0" button. (The WRITE display.)

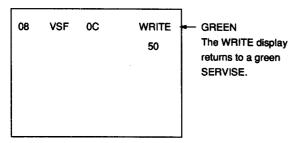
Use the same method for Items Number 00-40. Use "1" and "4" to select the adjustment item, use "3" and "6" to adjust, write with "MUTE", then execute the write with "0".



Adjusted with "3" and "6" buttons



Written with "MUTE"



Write executed with "0"

Adjustment Item Table

Item number	Adjustment Item	Data range	Initial data		Standard data	Note	Device
00 01 02 03 04 05 06 07	HSF HSZ PAP CNP TLT VSL VAP SCR VSF	00~3F 00~3F 00~3F 00~3F 00~3F 00~3F 00~3F	24 23 21 29 20 20 1D 20 20	50: 21 50: 27 50: 25 50: 2D 50: 24 50: 21 50: 3E 50: 29 50: 39	60: 26 60: 28 60: 25 60: 2F 60: 20 60: 21 60: 3F 60: 29 60: 3A	H SHIFT H SIZE PIN AMPLITUDE CORNER PIN TILT V SLOPE V AMPLITUDE S CORRECTION V SHIFT	(TDA8366) (TDA8366) (TDA8366) (TDA8366) (TDA8366) (TDA8366) (TDA8366) (TDA8366) (TDA8366)
09	RDR	00~3F	25		25 (Fix)	WHITE POINT R	(TDA8366)
0A	GDR	00~3F	20		20	WHITE POINT G	(TDA8366)
0B	BDR	00~3F	20		20	WHITE POINT B	(TDA8366)
0C	YDL	00~0F	00		00	Y DELAY ADJUSTMENT	(TDA8366)
OD	FO	00~02	00	TV: 00	VIDEO: 00	PHI-1TIME CONSTANT	(TDA8366)
OE	AGC	00~3F	06	TV: 06	VIDEO: 06	AGC TAKE OVER	(TDA8366)
OF	VSW	00~01	01	TV: 00	VIDEO: 01	VIDEO MUTE	(TDA8366)
10	FOR	00~03	00		0	FORCED FIELD FREQ.	(TDA8366)
11	DL	00~01	00		0	INTERLACE	(TDA8366)
12	POC	00~01	00		0	SYNCHRONISATION	(TDA8366)
13 14 15 16 17 18	NCI VID HCO EVG SBL PRD	00~01 00~01 00~01 00~01 00~01 00~01	00 00 00 00 00	50: 00 50: 00 50: 00 50: 00 50: 00 50: 00	60: 00 60: 00 60: 00 60: 00 60: 00	V DIVIDER MODE VIDEO IDENT MODE EHT TRACKING MODE ENABLE V GUARD SERVICE BLANKING OVER-VOLTAGE INPUT	(TDA8366) (TDA8366) (TDA8366) (TDA8366) (TDA8366) (TDA8366)
19	EXP	00~03	00		00	V DEFLECTION MODE	(TDA8366)
1A	SFM	00~01	01		01	H FREQ. DURING SWON	(TDA8366)
1B	PHL	00~01	00		00	COLOR X-TAL PLL	(TDA8366)
1C	COR	00~01	00		00	NOISE CORING PEAK	(TDA8366)
1D	PMX	00~3F	20		2D	PICTURE MAX DATA	(TDA8366)
1E	SBR	00~7F	4B		53	SUB-BRIGHTNESS	(TDA8366)
1F	SHU	00~0F	07		07	SUB-HUE	(TDA8366)
20	SSH	00~03 00~3F	01 3F	TV: 01 50: 3F	VIDEO: 03 60: 3F	SUB-SHARPNESS SUB-COLOR	(TDA8366) (TDA8366)

For KV-T25L1/T25MF1/T25SF1/T25SF11 only

22 23	TXP MXP	00~0F 00~0F	09 0B	09 0B	Text Picture cont. Text Mix mode Pic.	(SAA5281) (SAA5281)
24 25 26 27 28 29 2A 2B	ODL OFR OFM OSH MUT ABL OP0 OP1	00~FF 00~0F 00~0F 00~3F 00~01 00~01 00~FF	10 00 00 0A 01 01 40	10 00 00 06 00 01 2B 07	Power ON Delay Remo. con. RGB OUT Main power RGB OUT OSD Position H No Sync. Mute Bright ABL Option 0 Option 1	(CXP85200) (CXP85200) (CXP85200) (CXP85200) (CXP85200) (CXP85200) (CXP85200) (CXP85200)

 $[\]divideontimes$ 50 \cdots 50Hz data 60 \cdots 60Hz data

^{💥 .} Standard data listed on the Adjustment Item Table are reference values, therefore differ per model.

For KV-T25MN11 only

item number	Adjustment Item	Data range	Initial data	Standard data	Note	Device
22	FAW	00~FF	08	08 (Fix)	NICAM FAW Thresh	(MSP3410)
23	СТМ	00~FF	08	08 (Fix)	NICAM Error Bit (MONO)	(MSP3410)
24	CTN	00~FF	50	50 (Fix)	NICAM Error Bit (NICAM)	(MSP3410)
25	WCD	00~FF	15	15	W. G. Change Data	(MSP3410
26	WST	00~FF	50	50	W. G. Stereo Cut Point	(MSP3410
27	WTM	00∼FF	EA	EA	W. G. Timer Change	(MSP3410
28	WBT	00∼FF	01	01	W. G. BILINGUAL	(MSP3410
29	ACG	00~01	50	50	AGC AUTO/CONST.	(MSP3410
2A	CDB	00~7F	50	50	AGC GAIN CONST.	(MSP3410
2B	FGP	00~7F	24	24	FM (BG, I, DK) Prescale	(MSP3410
2C	FMP	00~7F	44	44	FM (M) Prescale	(MSP3410
2D	WGP	00~7F	3C	3C	W. G. Prescale	(MSP3410
2E	NIP	00~7F	7F	7 F	NICAM Plescale	(MSP3410
2F	CRM	00~01	00	00	Carrior Mute	(MSP3410
30	ACO	00~01	01	01	Audio Clock Out	(MSP3410
31	WAC	00~0F	01	01	W. G. Agreement count	(MSP3410
32	TXP	00~0F	09	09	Text Picture cont.	(SAA5281
_ 33	MXP	00~0F	0B	0B	Text Mix mode Pic.	(SAA5281
34	HBL	00~3F	20	20	H Blk Left Width	(CXP8520
35	HBR	00~3F	20	20	H Blk Right Width	CXP8520
36	VBH	00~FF	00	00	V Blk High Width	CXP8520
37	VBL	00~FF	FF	FF	V Blk Low Width	(CXP8520
38	ODL	00~FF	10	10	Power ON Delay	(CXP8520
39	OFR	00~0F	00	00	Remo. con. RGB OUT	(CXP8520
3 A	OFM	00~0F	00	00	Main power RGB OUT	(CXP8520
3B	OSH	00~3F	0A	0 A	OSD Position H	(CXP8520
3C	MUT	00~01	01	01	No Sync. Mute	(CXP8520
3D	DWZ	00~01	00	. 00	Disable Widezoom	(CXP8520
3E	ABL	00~01	01	01	Bright ABL	(CXP8520
3F	OP0	00~FF	40	40	Option 0	(CXP8520
40	OP1	00~FF	07	07	Option 1	(CXP8520

No 2A, 3F OP0 * Input data are different according to models.

•			•					
ltem		AV	Input	-	_	_	_	Saudi
KV-T25MF1	0	1	0	0	0	0	0	0
KV-T25MN11	0	1	0	0	0	0	0	0
KV-T25L1	0	0	1	0	0	0	0	0
KV-T25SF1	0	1	0	0	0	0	0	0
KV-T25SF11	0	1	0	0	0	0	0	0

No 2B, 40 OP1

Item	-	-	_	TVS	ystem	NTSC	SECAM	Chin
KV-T25MF1	0	0	0	0	0 _	1	1	1
KV-T25MN11	0	0	0	0	0	1	1	1
KV-T25L1	0	0	0	0	1	1	1	1
KV-T25SF1	0	0	0	0	1	1	0	1
KV-T25SF11	0	0	0	0	1	1	0	1

4-3. A BOARD, ADJUSTMENT AFTER IC003 (MEMORY) REPLACEMENT

- 1. Enter to Service Mode.
- 2. Press commander buttons "5" and "0" (Data Initialize), and "2" and "0" (Data Copy) to initialize the data.
- 3. Call each item number, and check if the respective screen shows the normal picture.

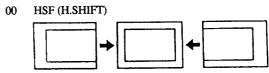
In case some items are not well-adjusted, give them fine adjustment.

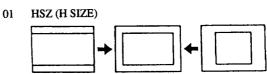
Write the data per each item number (MUTE + 0).

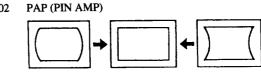
- 4. Select item numbers "2A" (OP0) and "2B" (OP1) for mono, and 3F (OP0) and "40" (OP1) for STEREO, and respectively set the bit per model with command buttons "3" and "6".
- 5. Press commander buttons "8" and "0" (Test Normal) to return to the data that was set on the shipment from the factory.(= Cancel Service Mode.)

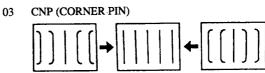
4-4. PICTURE DISTORTION ADJUSTMENT

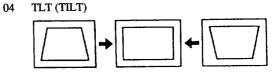
Item Number 00 - 08

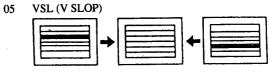


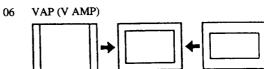


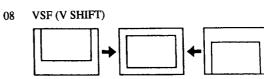




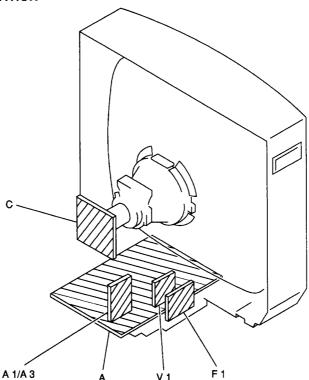








5-2. CIRCUIT BOARDS LOCATION



5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note: All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytic and tantalums. All resistors are in ohms. kΩ = 1000, MΩ = 1000kΩ Indication of resistance, which does not have one for rating electrical power, is as follows. Pitch: 5 mm Rating electrical power 1/4W (CHIP: 1/10W)

innoflammable resistor.
 internal component.
 panel designation, or adjustment for repair.
 All variable and adjustable resistors have characteristic curve B, unless

All variable and adjustable resistors have characteristic curve B, unless
otherwise noted.

Readings are taken with a color-bar signal input.

no mark: PAL
(): SECAM
(): NTSC 4.43

• Readings are taken with a 10 $M\Omega$ digital multimeter.

Voltage are dc with respect to ground unless otherwise noted.

Voltage variations may be noted due to normal production tolerances.

All voltages are in V.

* : Can not be measured.

Circled numbers are waveform reference.

: B + bus.
 : B - bus.
 : signal path.

Reference Information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFRAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: RW	NONFLAMMABLE WIREWOUND
	: **	ADJUSTMENT RESISTOR
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

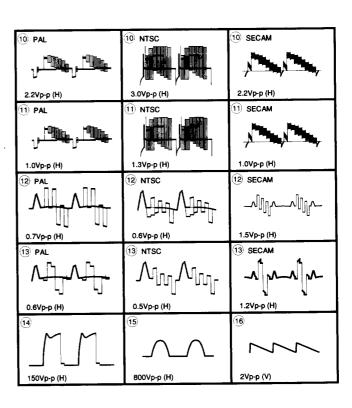
Note: The component identified by shading and mark Λ are critical for safety. Replace only with part number specified.

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KV-T25L1/T25MF1/T25MN11 KV-T25SF1/T25SF11 RM-870

A BOARD WAVEFORMS

①	② 0 0 0 0 0	③ PAL			
	VVVV '				
5.0Vp-p (H)	4.0Vp-p	0.7Vp-p (H)			
3 NTSC	③ SECAM	4 PAL			
$\sqrt{M}\sqrt{M}$		\ 			
0.6Vp-p (H)	1.6Vp-p (H)	0.6Vp-р (H)			
4 NTSC	4 SECAM	5 PAL/SECAM			
	-1/2-1/2-				
0.4Vp-p (H)	1.2Vp-p (H)	PAL: 1.3Vp-ρ (H) SECAM: 1.5Vp-ρ (H)			
(5) NTSC	6 PAL/SECAM	6 NTSC			
$\sqrt{M^2}$		NATA PAR			
0.8Vp-p (H)	PAL: 1.0Vp-p (H) SECAM: 1.2Vp-p (H)	0.6Vp-p (H)			
7 PAL/SECAM	7 NTSC	8 PAL/SECAM			
3.6Vp-p (H)	4.0Vp-p (H)	3.3Vp-p (H)			
® NTSC	9 PAL/SECAM	9 NTSC			
	PAL: 3.4Vp-p (H)				
4.0Vp-р (H)	SECAM: 3.0Vp-p (H)	4.0Vp-p (H)			

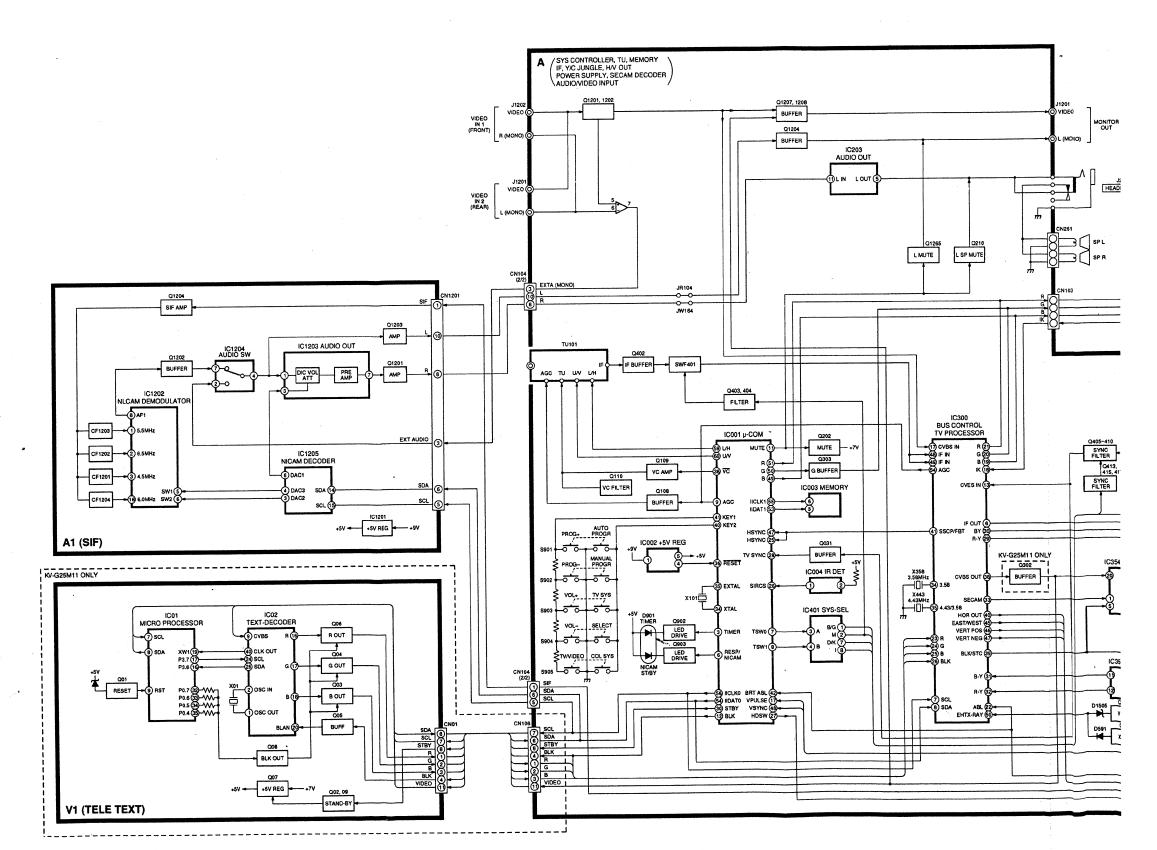


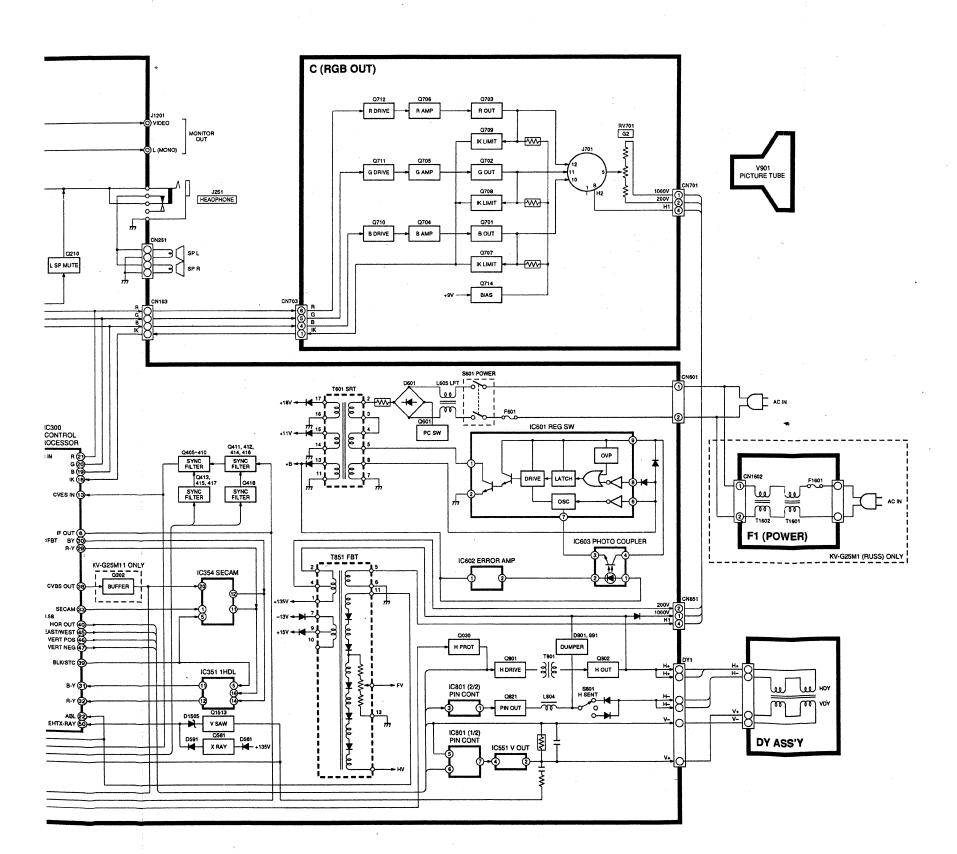


NOTE:

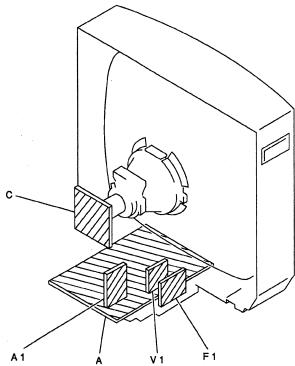
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

5-1. BLOCK DIAGRAMS





5-2. CIRCUIT BOARDS LOCATION



5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytic and tantalums.
- All resistors are in ohms. $k\Omega = 100\Omega$, $M\Omega = 1000k\Omega$
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch: 5 mm Rating electrical power 1/4W (CHIP: 1/10W)

- - : nonflammable resistor.
- Δ : internal component.
- : panel designation, or adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- Readings are taken with a color-bar signal input.
 no mark: PAL

(): SECAM (): NTSC 4.43

- Readings are taken with a 10 $M\Omega$ digital multimeter.
- Voltage are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- All voltages are in V.
 - * : Can not be measured.
- Circled numbers are waveform reference.
- ----: B bus.
- : signal path.

Reference information

: ALT

: ALR

METAL FILM RESISTOR : RN SOLID : RC NONFRAMMABLE CARBON NONFLAMMABLE FUSIBLE NONFLAMMABLE METAL OXIDE : RS : RB NONFLAMMABLE CEMENT NONFLAMMABLE WIREWOUND : RW : ※ ADJUSTMENT RESISTOR : LF-8L MICRO INDUCTOR CAPACITOR : TA TANTALUM : PS STYROL :PP POLYPROPYLENE :PT MYLAR : MPS METALIZED POLYESTER METALIZED POLYPROPYLENE : MPP : ALB BIPOLAR

Note: The component identified by shading and mark ${\textstyle \bigwedge}$ are critical for safety. Replace only with part number specified.

HIGH TEMPERATURE

HIGH RIPPLE

PRINTED WIRING BOARD

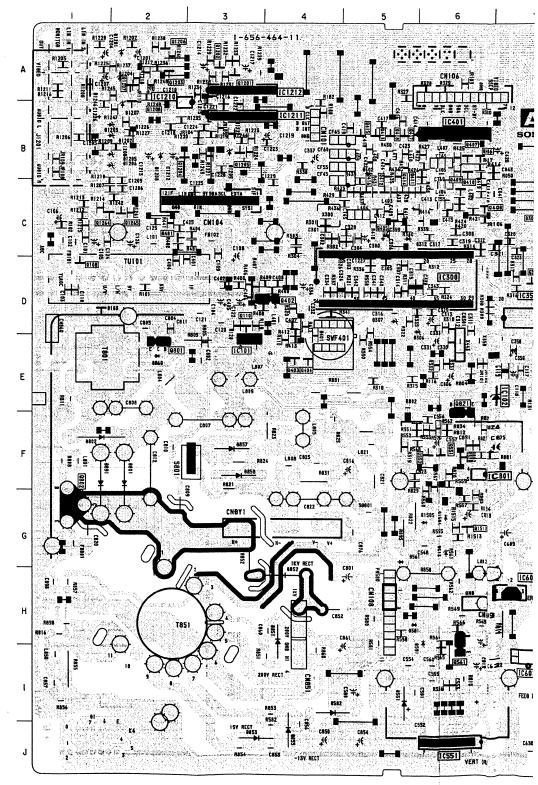
A

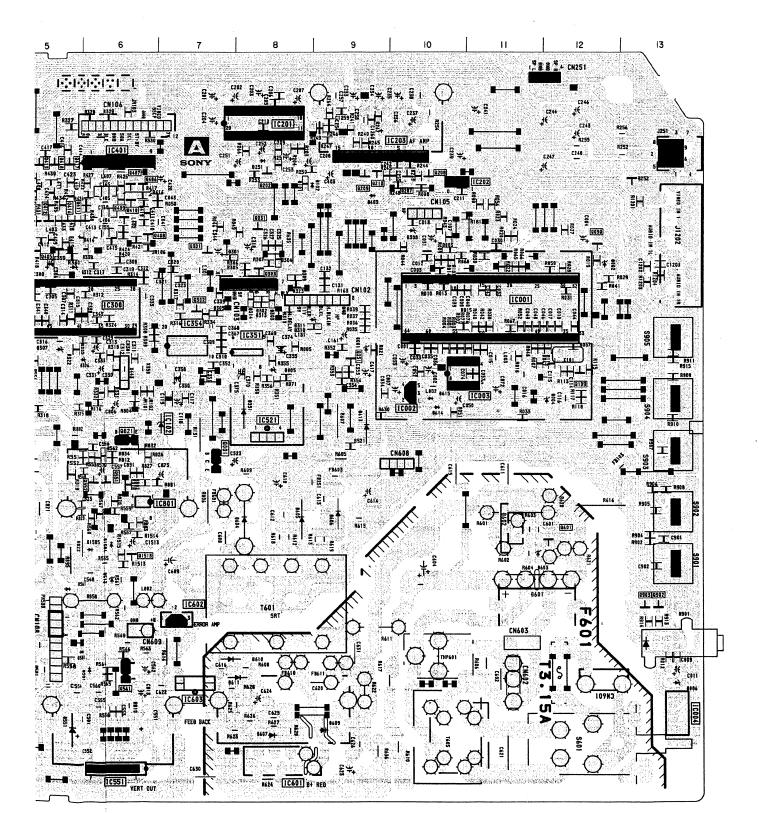
- A Board -

[SYS CONTROLLER, TU, MEMORY, IF, Y/C JUNGLE H/V OUT, POWER SUPPLY, SECAM DECODER, AUDIO/VIDEO INPUT]

A BOARD

	01000	D.C.
IC	Q1208 Q1265 Q1513	B-2 C-2 G-6
IC001 D-11 IC002 E-10 IC003 E-11	DIO	DE
C004	D001 D002 D003 D004 D005 D101 D102 D103 D251 D252 D301 D302 D303 D304	D-9 C-12 C-10 E-12 E-8 B-9 D-1 B-8 B-13 C-7 D-8 D-8 C-8
FRANSISTOR	D305 D306 D307	D-7 D-6 D-5
Q030 C-12 Q031 C-8 Q108 D-1 Q109 E-12 Q110 D-3 Q202 B-8 Q207 B-10 Q208 B-10 Q210 B-9 Q301 C-7 Q302 D-7 Q303 C-8 Q402 D-4 Q403 E-4 Q404 E-4 Q405 C-5 Q406 B-6 Q407 B-6 Q408 C-6 Q409 C-6 Q410 C-5 Q411 C-5 Q411 B-5 Q414 C-5 Q411 B-5 Q414 C-5 Q415 B-5 Q414 C-5 Q417 B-5 Q418 B-5 Q416 G-12 Q801 B-2 Q802 G-1 Q802 B-1 Q802 B-1 Q802 B-1 Q803 B-1 Q804 B-2 Q804 B-2 Q805 B-1 Q805 B-1 Q806 B-1 Q807 B-1 Q807 B-1 Q808 B-	D308 D310 D311 D312 D313 D314 D351 D401 D402 D403 D513 D551 D601 D602 D603 D604 D605 D606 D607 D609 D610 D611 D801 D801 D802 D853 D856 D857 D858 D856 D857 D858 D856 D857 D858 D857 D858 D857 D858 D850 D891 D901 D1201 D1202 D1207 D1208 D1505	C-8 D-8 C-5 D-8 C-5 B-6 I-5 G-6 I-11 I-8 I-14 I-8 I-14 I-8 I-14 I-8 I-14 I-8 I-14 I-8 I-9 I-9 I-9 I-14 I-9 I-9 I-9 I-9 I-9 I-9 I-9 I-9 I-9 I-9





A BOARD WAVEFORMS

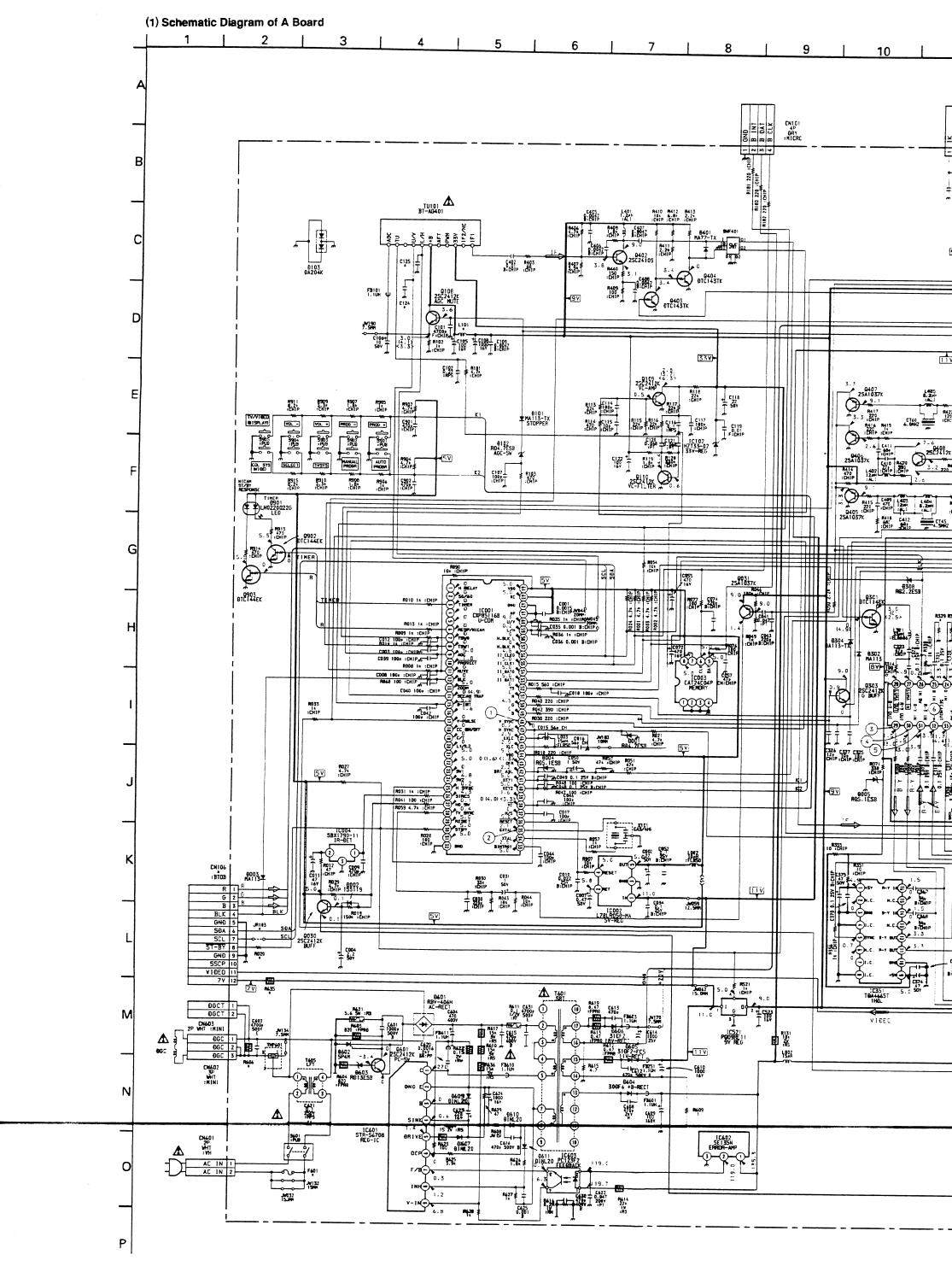
1	(2)	③ PAL
	\mathbb{Z}^{1}	
5.0Vp-p (H)	4.0Vp-p	0.7Vp-p (H)
③ NTSC	③ SECAM	4 PAL
$\sqrt{M}\sqrt{M}$		
0.6Vp-p (H)	1.6Vp-р (Н)	0.6Vp-p (H)
♠ NTSC	4 SECAM	⑤ PAL/SECAM
MANAR I	-1/2-1/2	
کی کیا 0.4Vp-p (H)	1.2Vp-p (H)	PAL: 1.3Vp-p (H) SECAM: 1.5Vp-p (H)
5 NTSC	6 PAL/SECAM	⑥ NTSC
$\sqrt{M}\sqrt{M}$		AT ATE
0.8Vp-р (Н)	PAL: 1.0Vp-p (H) SECAM: 1.2Vp-p (H)	0.6Vp-p (H)
7 PAL/SECAM	7 NTSC	8 PAL/SECAM
3.6Vp-p (H)	4.0Vp-p (H)	3.3Vp-p (H)
® NTSC	9 PAL/SECAM	9 NTSC
	PAL: 3.4Vp-p (H)	
4.0Vp-p (H)	SECAM: 3.0Vp-p (H)	4.0Vp-p (H)

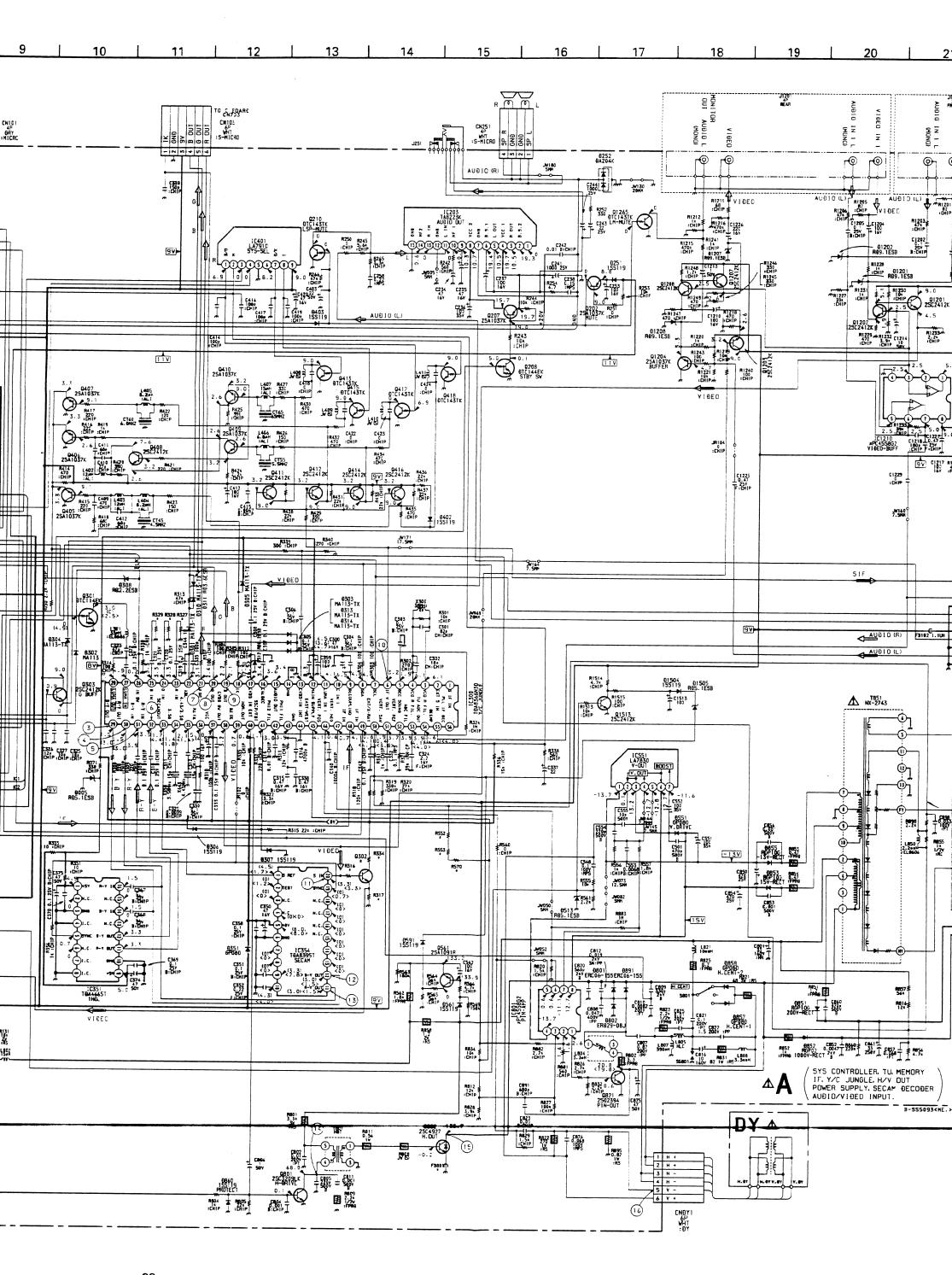
10 PAL	10 NTSC	10 SECAM
y Table 1990		1
2.2Vp-p (H)	3.0Vp-p (H)	2.2Vp-p (H)
1 PAL	11) NTSC	① SECAM
o tame		, Marian
1.0Vp-p (H)	1.3Vp-p (H)	1.0Vp-p (H)
12 PAL	12 NTSC	12 SECAM
	Vint Vint	
0.7Vp-p (H)	0.6Vp-p (H)	1.5Vp-p (H)
13 PAL	(3) NTSC .	13 SECAM
		-V[r-v[r
0.6Vp-p (H)	0.5Vp-p (H)	1.2Vp-p (H)
	(9)	® 7
150Vp-p (H)	800Vp-p (H)	2Vp-p (V)

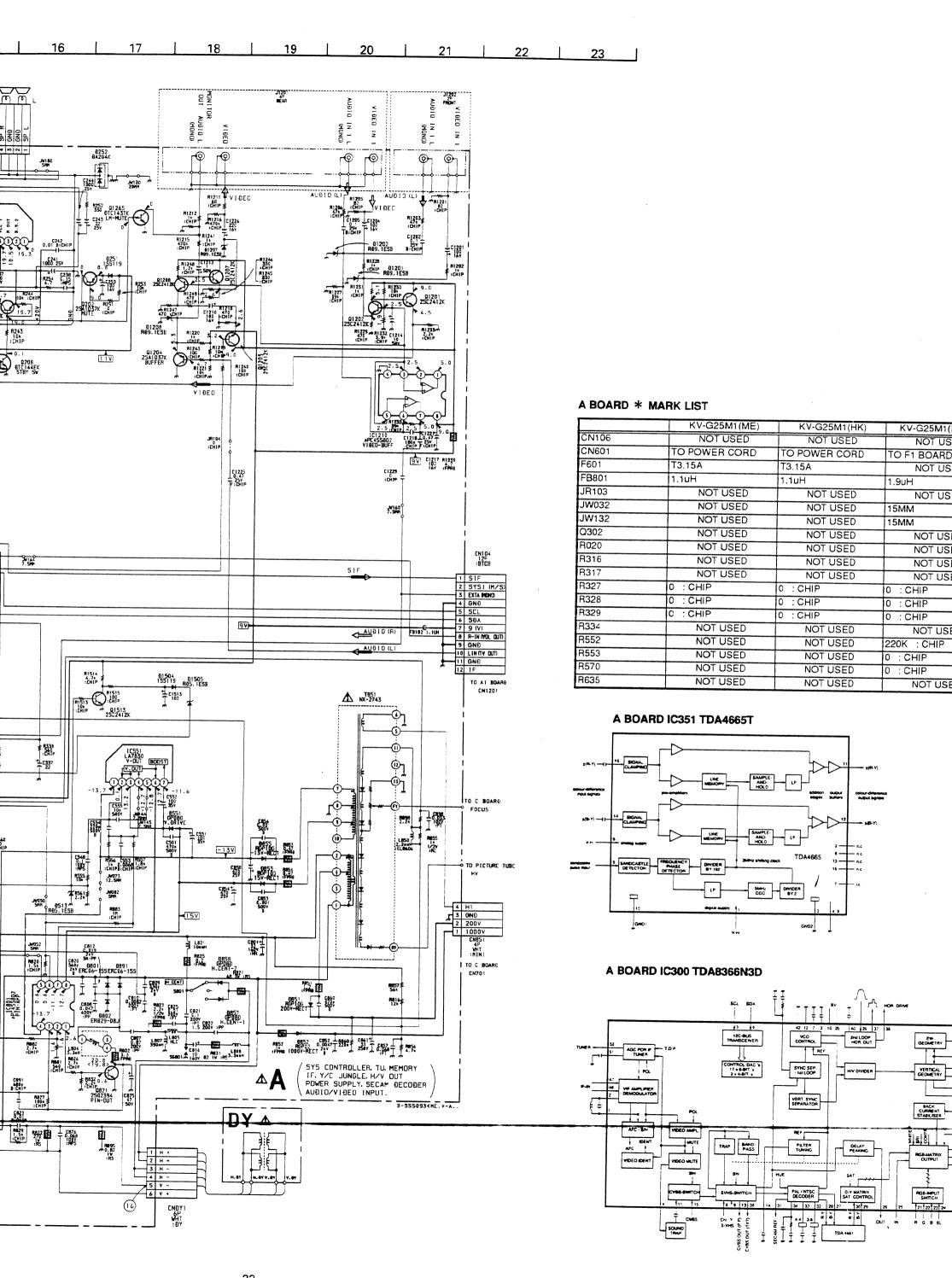


NOTE:

The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.







1 S1F
2 SYS1 (H/S)
3 EXTA MOND
4 GND
5 GND
5 GND
7 9 (V)
8 R-IN MOL QUT)
9 GND
10 LIN (TV QUT)
11 GND

TO AT BOARS

TO PICTURE TUBE

3 GND 2 200V 1000V CNB51 4P WHT :HINI

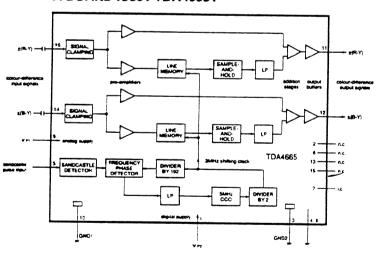
TO C BOARE

CN701

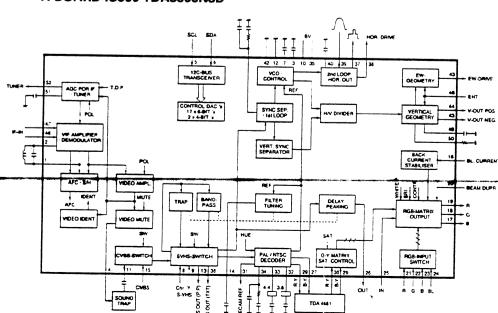
A BOARD * MARK LIST

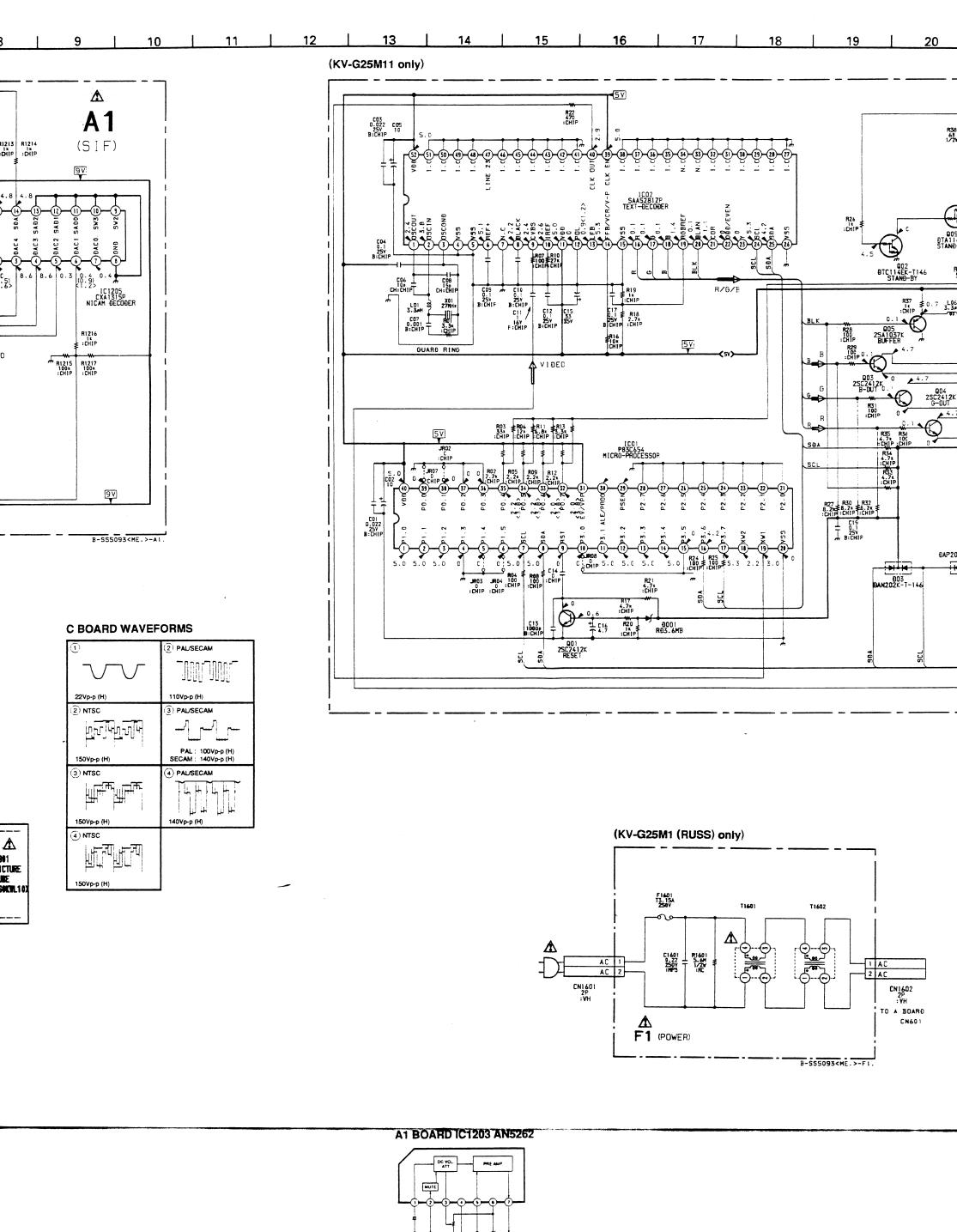
	KV-G25M1(ME)	KV-G25M1(HK)	KV-G25M1(RUSS)	KV-G25M11
CN106	NOT USED	NOT USED	NOT USED	12P : BTOB
CN601	TO POWER CORD	TO POWER CORD	TO F1 BOARD CN1602	
F601	T3.15A	T3.15A	NOT USED	T3.15A
FB801	1.1uH	1.1uH	1.9uH	1.1uH
JR103	NOT USED	NOT USED	NOT USED	0 : CHIP
JW032	NOT USED	NOT USED	15MM	NOT USED
JW132	NOT USED	NOT USED	15MM	NOT USED
Q 30 2	NOT USED	NOT USED	NOT USED	2SC2412K
R020	NOT USED	NOT USED	NOT USED	100 : CHIP
R316	NOT USED	NOT USED	NOT USED	4.7K : CHIP
R317	NOT USED	NOT USED	NOT USED	1K : CHIP
R327	0 : CHIP	0 : CHIP	0 : CHIP	100 : CHIP
R328	0 : CHIP	0 : CHIP	0 : CHIP	100 : CHIP
R329	C : CHIP	0 : CHIP	0 : CHIP	100 : CHIP
R334	NOT USED	NOT USED	NOT USED	470 : CHIP
R552	NOT USED	NOT USED	220K : CHIP	220K : CHIP
R 55 3	NOT USED	NOT USED		0 : CHIP
R570	NOT USED	NOT USED	0 : CHIP	0 : CHIP
R635	NOT USED	NOT USED	NOT USED	22 2W :RS

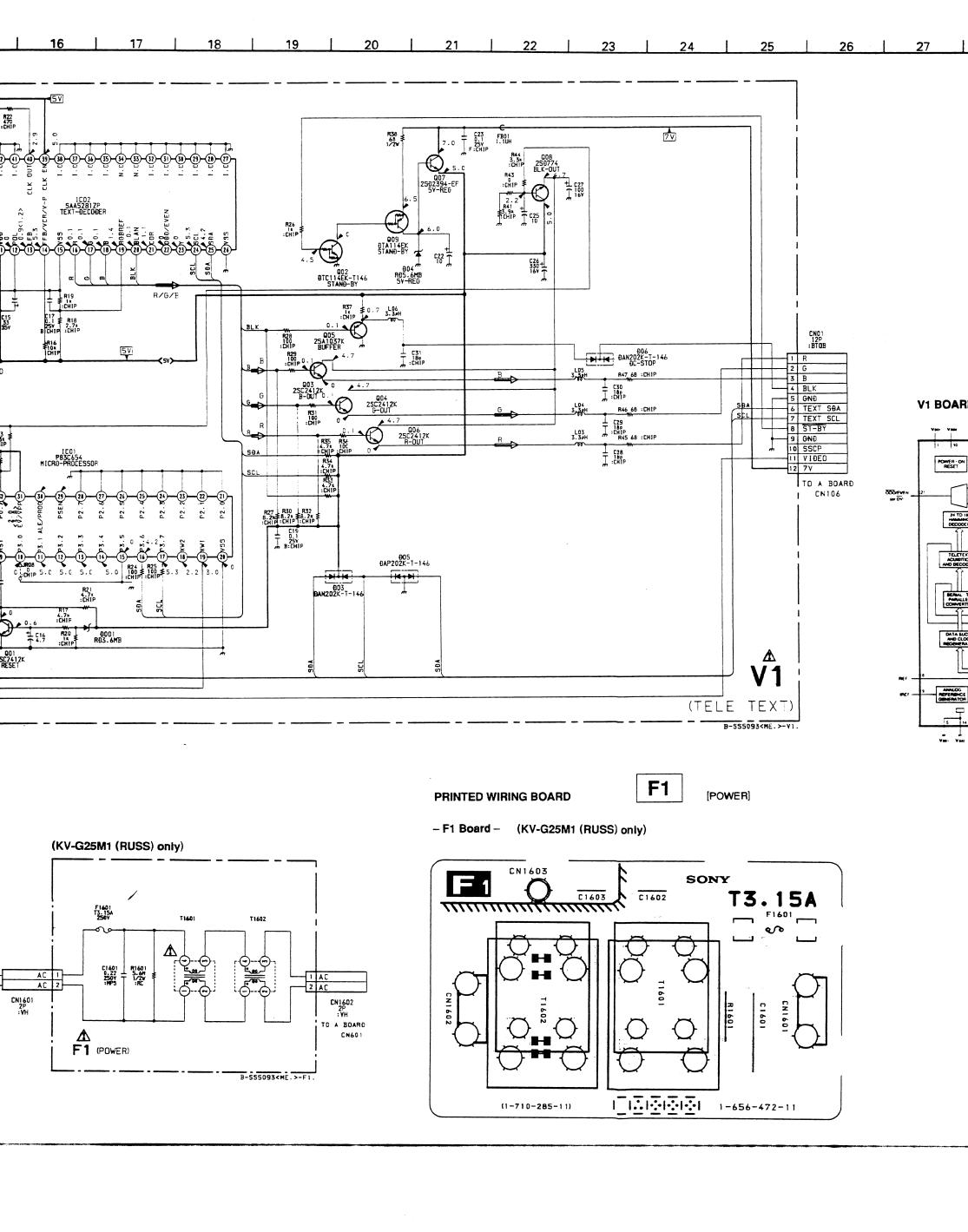
A BOARD IC351 TDA4665T

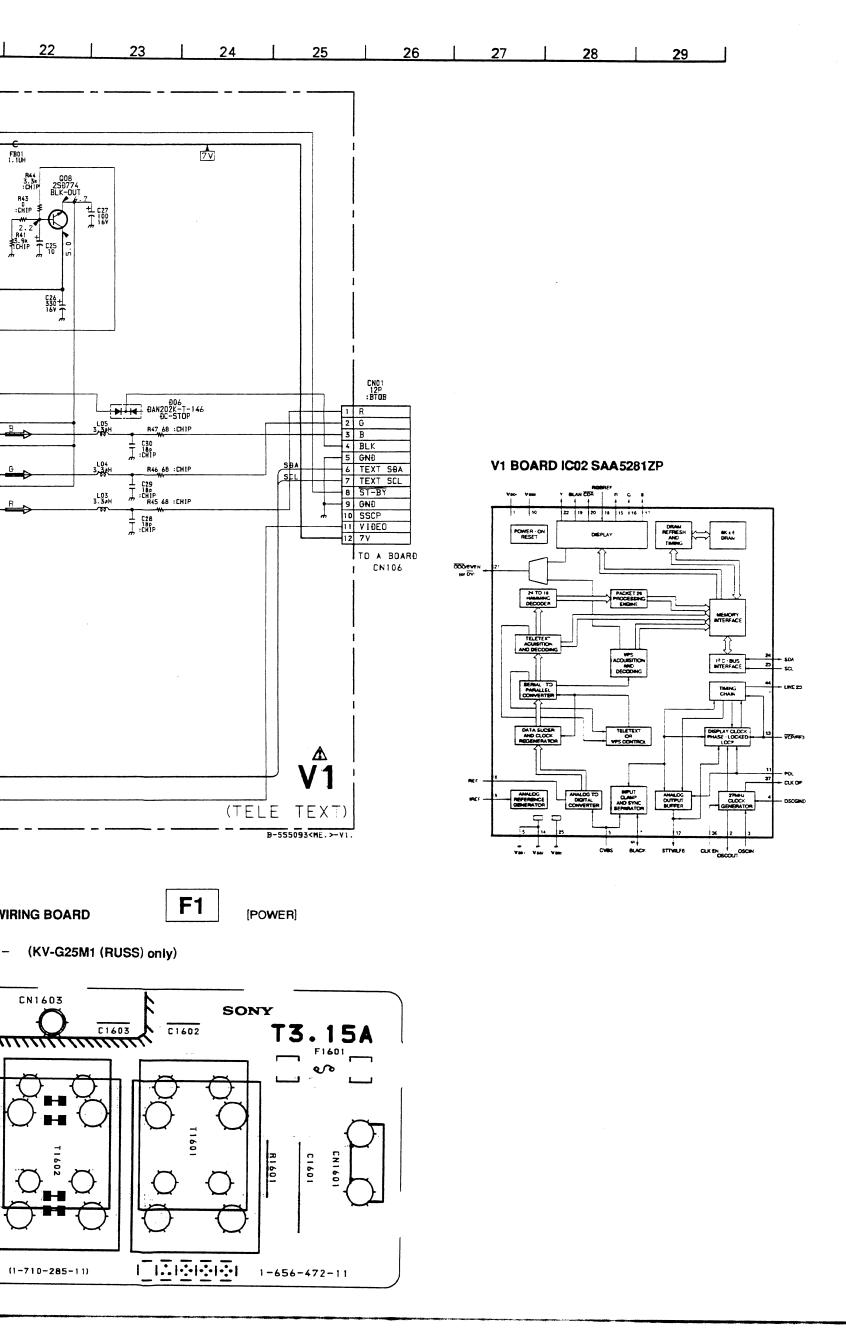


A BOARD IC300 TDA8366N3D

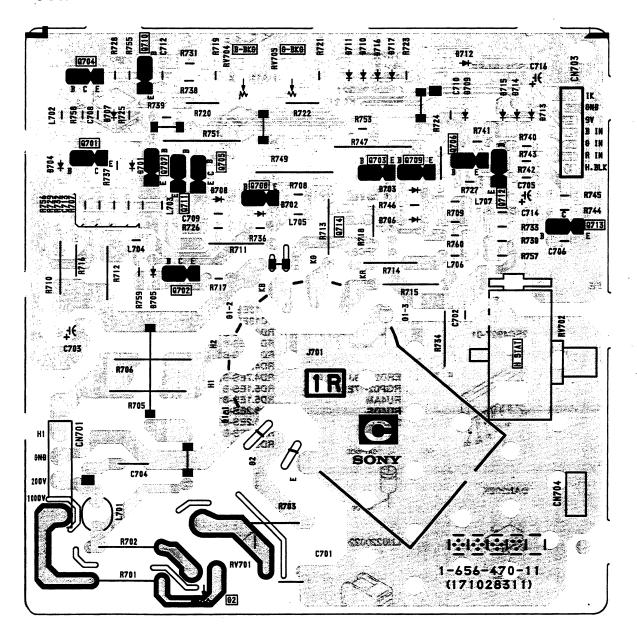






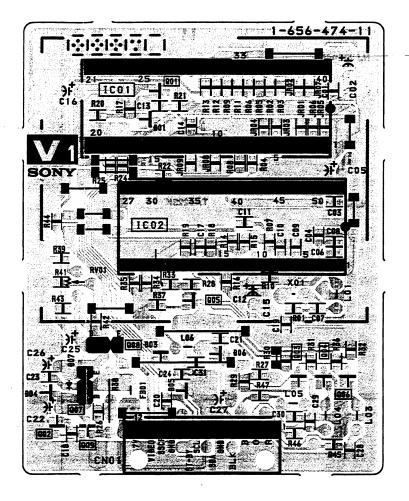




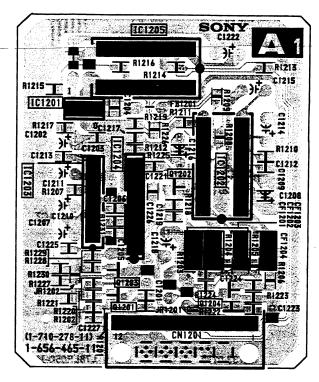


- V1 Board - (KV-G25M11 only)

[TELE TEXT]



- A1 Board -

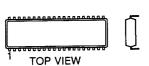


5-4. SEMICONDUCTORS

AN5262



CAT24C04P (8PIN)
CXA1110BS (30PIN)
CXA1315P (16PIN)
CXP85116B-615S (64PIN)
CXP85224A-010S (64PIN)
P83C654 (40PIN)
SAA5281ZP (52PIN)
TDA4665T (16PIN)
TDA8366N3D (56PIN)
TDA8395T (20PIN)
TDA8424 (20PIN)
TDA9820 (16PIN)
TDA9821 (16PIN)

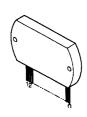


Dual In-line Package Pin 6 ∼ 98

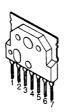
HZT33-02TE μPC574J



LA7016



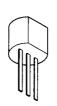
LA7830



LA7910



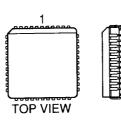
LM78L05ACZ



L78LR05D-MA



MSP3410 (44PIN)

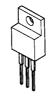


Quad Flat J-leaded Package Pin 20 \sim 996

NJM2234L



NJM7805FA



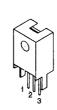
NJM78L12A



PQ09RE11



SBX1790-11 SBX1790-51



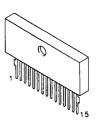
SE-135N



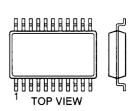
STR-S6708



TA8223K



μPC4558G2 (8PIN)



Small Outline L-leaded Package Pin 8 \sim 98

KV-T25L1/T25MF1/T25MN11 KV-T25SF1/T25SF11 RM-870

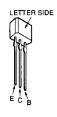
DTA114EK DTC114EK DTC143TK DTC144EK 2SA1037K-QR 2SA1162-G 2SC1623-L5L6 2SC2412K-QR 2SC2712-YG



2SA1091 2SA1091-O 2SC2551-O



2SC2410SN 2SC2785-HFE



2SC2611



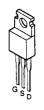
2SC2669-O



2SC3209LK 2SD774-34



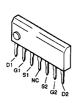
2SD2394-EF



2SD2394-F



2SC4927-01



DAN202K



DAP202K



DA204K



D1NL20 EL-1Z GP08D GP08DPKG23 RGP10GPKG23



ERC06-15S S3L20UF4 30DF6FC8



ERD29-08J RGP02-17EL RU4AM RU4DS 31DF2



LN0220022G





LN4SB60 RBV-406H



MA113-TX



MA77-TX



RD13ES-B RD13ES-B2 RD2.2ES-B RD3.6ES-B1 RD4.7ES-B RD4.7ES-B2 RD5.1ES-B1 RD5.1ES-B1 RD8.2ES-B RD8.2ES-B2 RD9.1ES-BR



RD3.6M-B RD3.6M-B1 RD5.6M-B RD5.6M-B2



5P4M



PC123F2



6-1. CHASSIS

